

20409BC

**Server Virtualization with  
Windows Server Hyper-V  
and System Center**

5 DAYS

Get professional, experienced instruction and hands-on practice implementing Microsoft Server Virtualization technologies using Windows Server 2012 R2 Hyper-V and System Center 2012 R2 Virtual Machine Manager in this 5-day Microsoft Official Course. You will learn the skills you need to deploy and manage a Microsoft Server Virtualization infrastructure in an enterprise environment. You will learn how to install, configure, manage, and maintain Windows Server 2012 R2 Hyper-V and System Center 2012 R2 Virtual Machine Manager including networking and storage services. You will learn how to configure key Microsoft Server Virtualization features such as Generation 2 Virtual Machines, Replication Extension, Online Export, Cross-Version Live Migration, Online VHDX Resizing, Live Migration Performance tuning as well as Dynamic Virtual Switch Load Balancing and virtual Receive Side Scaling (vRSS). As part of the learning experience, you will also perform hands-on exercises in a virtual lab environment.

**Module 1: Evaluating the Environment for Virtualization**

- Overview of Microsoft Virtualization
- Overview of System Center 2012 R2 Components
- Evaluating Current Environment for Virtualization
- Extending Virtualization to the Cloud Environment

**Module 2: Installing and Configuring the Hyper-V Role**

- Installing the Hyper-V Role
- Managing Hyper-V
- Configuring Hyper-V Settings
- Hyper-V Host Storage and Networking

**Module 3: Creating and Managing Virtual Hard Disks, Virtual Machines, and Checkpoints**

- Creating and Configuring Virtual Hard Disks
- Creating and Configuring Virtual Machines
- Installing and Importing Virtual Machines
- Managing Virtual Machine Checkpoints
- Monitoring Hyper-V
- Designing Virtual Machines for Server Roles and Services

**Module 4: Creating and Configuring Virtual Machine Networks**

- Creating and Using Hyper-V Virtual Switches
- Advanced Hyper-V Networking Features
- Configuring and Using Hyper-V Network Virtualization

## Module 5: Virtual Machine Movement and Hyper-V Replica

Providing High Availability and Redundancy for Virtualization  
Implementing Virtual Machine Movement  
Implementing and Managing Hyper-V Replica

## Module 6: Implementing Failover Clustering with Hyper-V

Overview of Failover Clustering  
Configuring and Using Shared Storage  
Implementing and Managing Failover Clustering with Hyper-V

## Module 7: Installing and Configuring System Center 2012 R2 Virtual Machine Manager

Integrating System Center and Server Virtualization  
Overview of VMM  
Installing VMM  
Adding Hosts and Managing Host Groups

## Module 8: Managing the Networking and Storage Infrastructure in System Center 2012 R2 Virtual Machine Manager

Managing Networking Infrastructure  
Managing Storage Infrastructure  
Managing Infrastructure Updates

## Module 9: Creating and Managing Virtual Machines by Using Microsoft System Center 2012 R2 Virtual Machine Manager

Virtual Machine Management Tasks in VMM  
Creating, Cloning, and Converting Virtual Machines  
Overview of Virtual Machine Updating

## Module 10: Configuring and Managing the Microsoft System Center 2012 R2 Virtual Machine Manager Library and Library Objects

Overview of the Virtual Machine Manager Library  
Working With Profiles and Templates

## Module 11: Managing Clouds in Microsoft System Center 2012 R2 Virtual Machine Manager

Introduction to Clouds  
Creating and Managing a Cloud  
Working With User Roles in Virtual Machine Manager

## Module 12: Managing Services in Microsoft System Center 2012 R2 Virtual Machine Manager and App Controller

Understanding Services in VMM  
Creating and Managing Services in VMM  
Using App Controller